

REMARKS

INTRODUCTION

Claims 1-28 were previously pending and under consideration.

Claims 10, 11, and 26 are allowed.

Claim 29 has been added.

Claims 1-29 are now pending and under consideration.

Claims 1-9, 12-25, 27, and 28 are rejected.

Claims 1, 9, 10, 24, 26, and 28 are objected to.

Claims 1, 5, 8-10, 13, 14, 22-24, 26, and 27 have been amended herein.

No new matter is being presented, and approval and entry are respectfully requested.

OBJECTIONS TO THE CLAIMS

The formalities have been corrected as suggested by the Examiner. Withdrawal of the rejection is respectfully requested.

REJECTIONS UNDER 35 USC § 103

In the Office Action, at pages 6-21, claims 1-5, 7-9, 12-18, 21-24 and 27 were rejected under 35 U.S.C. § 103 as being unpatentable over Siddique in view of Goto. Claims 6, 19, 20, 25 and 28 were rejected under 35 U.S.C. § 103 as being unpatentable over Siddique in view of Goto and further in view of Hirata. These rejections are traversed and reconsideration is requested.

Claim 1, for example, recites that "the working means model is automatically selected from among plural other working means models pre-associated with the standard part models based on an automatic determination during the simulation that it satisfies an ideal working condition of the working means model". Claim 27 recites "based on the automatic simulating, automatically determining whether, among plural working means models mate-able with the

standard part model, the working means model is ideal for working the standard part model as arranged in the design model". The other independent claims are similarly amended.

This feature relates to an aspect of the present invention where plural working means models are available for a standard part model, and one of a plurality of the working means models that is ideal for working the standard part model is automatically determined from among the plural working means models. Support may be found at least at Figure 5, which shows multiple tools for a given type of screw. Furthermore, Figure 12, step B26 indicates that if the current tool works up to an ideal condition, then the simulation reports and ends with the current tool as the selected tool. If the ideal condition is not met, then another tool/working means model is selected for working simulation (B34 and B36).

Although Siddique's background discussion mentions tool selection (e.g. page 34, Huang and Lee 1990), it does not offer detail on how a tool is selected, nor does it suggest automatically finding an ideal tool for a standard part/fastener. In contrast, tool selection in Siddique is manual ("Connacher et al. [1995] used hands to allow the user to manipulate components in their virtual environment. The system ... for this research [a user] also uses a hand to [manually] manipulate components ... the hand ... is also used as the reference point to grab tools", page 117). None of the other prior art references are cited for or teach or suggest this automatic ideal tool selection feature.

Withdrawal of the rejection is respectfully requested.

NEW DEPENDENT CLAIM 29

New claim 29 recites that "the automatic determination is made by, for a particular standard part model, automatically simulating a working of the particular standard part model by two or more particular working means models, where the simulating is done with reference to an ideal working condition of each particular working means model, and where the particular working means models are automatically selected based on their pre-association with the particular standard part model". Support is found in the specification as discussed above. For example, Figure 5 shows two tools in tool set A associated with a part. See also page 66, second paragraph. This feature is not found or suggested in the prior art, which discusses manual control of a simulation to manually select and evaluate a tool in the simulation.

DEPENDENT CLAIMS

The other dependent claims are deemed patentable due at least to their dependence from allowable independent claims. These claims are also patentable due to their recitation of independently distinguishing features. For example, claim 8 recites "said working simulation execution section executes a working simulation based on the information regarding the working condition of the corresponding working means model stored in said working means model information storage section". This feature is not taught or suggested by the prior art. Withdrawal of the rejection of the dependent claims is respectfully requested.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: 9 Sep 2003

By: James T. Strom
James T. Strom
Registration No. 48,702

1201 New York Avenue, NW, Suite 700
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501

CERTIFICATE UNDER 37 CFR 1.8(a)
I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on 9 SEP 2003.
By: William Anderson
Date: September 9, 2003